NOVEMBER/DECEMBER 2024

23PCA13 — PYTHON PROGRAMMING

Time : Three hours Maximum : 75 marks

SHANMUGA INDUSTRIES ARTS & SCIENCE COLLEGE LIBRARY

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Differentiate between / and // operators in Python.
2. Write the syntax of count-controlled loop in Python.
3. Define the term-Data Encryption.
4. What is the role of Dictionary in Python?
5. Define the term-Inheritance.
6. What is Text widget in Python?
7. What is the role of Pandas in Python Programming?
8. What is Python Matplotlib?
9. Write the four constructs in Django template language.
10. What is CRUD interface?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Write a note on types of *if* statement with example.

Or

(b) Explain the Numeric data types of Python.

12. (a) Write a Python program for counting number of occurrence of a given character in a string.

Or

(b) Write a Python program to find the factorial of a given number using Recursive function.

13. (a) Develop a Python program to illustrate the Class and Objects.

Or

(b) Write a brief note on Window Components for GUI-Based programs.

14. (a) Explain the Array manipulation method in Python.

Or

(b) Describe the architecture of Matplotlib with a neat sketch.

15. (a) Discus on installing procedure of Django.

Or

(b) How will you implement the Detail view of an Object in Django? Explain.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Describe the operation of *while* loop and write a program to find the sum of the individual digits of a given number using *while* loop.

17. Discuss on the various String handling methods available in Python.

18. What is Polymorphism? Explain with an example program in Python.

19. Discuss on the creation of Line and Bar charts using Matplotlib's pyplot library.

20. Describe the procedure for working with QuerySets and Managers.

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